

REMARKS

**Drawings**

The Examiner has objected to Figure 4. In the Action, the Examiner indicates that Figure 4 has an arrow with a missing reference number. Applicant directs the Examiner's attention to the formal drawings submitted to the Office with the substitute specification on or about April 2001. A copy of these drawings is enclosed. A review of Figure 4 of the formal drawings finds no arrow with missing reference number. As such, Applicant cannot identify the alleged defect with Figure 4. Applicant therefore requests withdrawal of the objection, and explicit notice of the acceptance of the formal drawings previously submitted.

**Claim Rejections**

The Examiner has rejected claims 1-4, 6, 13-14 under §102 as being anticipated by Kohda. The Examiner has further rejected claims 5, 7-12, 15-42 under §103 as being obvious over Kohda variously in view of Ludwig, Tang, and/or Palmer. Applicant requests reconsideration of the rejections.

**Claims 1-14**

Independent claim 1 is directed to a communication terminal that comprises, *inter alia*, "a receiver ...; a comparator...; a display; and a controller controlling said display to display a video image extracted from said video signals based on the comparison of said received audio signals." The Examiner points to Figures 4-5 of Kohda to show the claimed structure. However, the structure shown in Figures 4-5 of Kohda is different

than that claimed in claim 1. As pointed out above, claim 1 is directed to a communications terminal that has the claimed receiver, comparator, display, and controller. In contrast, Kohda shows an "image distributing unit 20" that receives various audio and video signals, an image determination means 21, and is presumed (for purposes of this argument only) to have some sort of controller. However, Kohda's image distributing unit 20 does not include any display. Instead, a completely different unit, the image input/output unit 10 is supplied with a display (13,14). Thus, even assuming *arguendo* that the image distributing unit 20 of Kohda has the claimed receiver, comparator, and controller, the Kohda image distributing unit 20 simply does not also have the claimed display. The reason for this is quite simple, in that Kohda uses a central image distributing unit to force all the various image input/output units 10 to show the same video images (see Kohda col. 10, lines 55-62); in contrast, the invention of claim 1 allows each communication terminal to decide for itself which image to display. In view of the above, it is submitted that Kohda does not show or suggest all the limitations of claim 1, and therefore cannot anticipate the same. Accordingly, Applicant submits that claims 1-4 and 6 define patentable subject matter over the cited art.

With regards to dependent claims 5, 7, 10-14, these claims are rejected under §103 with Kohda as the primary reference. As discussed above, Kohda does not show or suggest all the limitations of independent claim 1, and none of the other cited art cures the defects in Kohda. Therefore, assuming *arguendo* that Kohda can be combined with the other cited art as proposed by the Examiner, the combination simply

does not teach each limitation of dependent claims 5, 7, 10-14. Accordingly, Applicant submits that claims 5, 7-14 define patentable subject matter over the cited art.

With further regard to dependent claim 3, this claim requires "wherein said comparator selects as said active participant said remote participant from which the strongest audio signal is received." The Examiner asserts that Kohda teaches this at col. 10, lines 1-7 and col. 11, lines 9-31. However, a review of these passages of Kohda finds that Kohda merely tries to identify any speaking participants, but never even attempts to identify which speaking participant has the strongest audio signal. With particular regard to col. 11, lines 23-31, Kohda appears to keep track of the "latest" participant to speak, but never looks at which participant has the stronger audio signal ("If congestion of the transmission occurs due to three or more participants speaking at the same time, the participant who newly started a speech is given priority over the others so as to replace the participant who started the speech earlier, out of the two participants who had been previously speaking.")(emphasis added). Thus, whatever else Kohda may do with respect to audio signals, Kohda simply does not look for the "participant from which the strongest audio signal is received," as required by claim 3. Accordingly, claim 3 defines patentable subject matter over the cited art, even if independent claim 1 does not.

With further regard to dependent claim 5, this claim requires "wherein said controller controls said display to freeze all but one extracted video image of one remote participant based on said comparison of said received audio signals from said remote participants by said comparator." The Examiner acknowledges that that Kohda fails to teach this aspect, but relies on col. 9, lines 19-20 of Palmer in an attempt to show this

limitation was known. This cited passage of Palmer reads "In this manner, a teleconference participant can control what each other participant receives from that workstation, e.g., muting audio or pausing video to certain participants while remaining active to other participants." This cited passage from Palmer merely suggests that the sender of the video image may control who receives an "active" video feed and who receives a "still" video feed. The passage says nothing about controlling the video feed (e.g., "freeze" or "active") based on audio signals. Thus, the Palmer approach teaches nothing about the receiving end of the video feed (the communication terminal) "control[ing the] display to freeze all but one extracted video image of one remote participant based on said comparison of said received audio signals from said remote participants by said comparator," as required by claim 5. Accordingly, even assuming *arguendo* that Kohda may be modified according to Palmer, claim 5 defines patentable subject matter over the cited art, even if independent claim 1 does not.

With further regard to dependent claims 6-7, 10-12 these claims require "wherein said controller controls said display to highlight one extracted video image of one remote participant based on said comparison of said received audio signals from said remote participants by said comparator." The Examiner points out that in Kohda, when more than two participants are presently speaking, Kohda may only display two participants, with the third not being displayed. However, a show/no-show reaction to too many participants to display, as in Kohda, says nothing about "highlighting" as required by claim 6. Highlighting, as understood by one of skill in the art and described in Applicant's specification, means "surrounding [] with a distinctive border" (page 9, lines 10-18), or "using a different color scheme" (page 10, lines 5-11), or by relative

sizing (page 10, line 22 to page 11, line 4), or the like. Highlighting simply does not mean "delete others," the process taught by Kohda. Thus, the Kohda approach teaches nothing about "control[ing] the display to highlight one extracted video image of one remote participant based on said comparison of said received audio signals from said remote participants by said comparator," as required by claim 6. Accordingly, claims 6-7, 10-12 define patentable subject matter over the cited art, even if independent claim 1 does not.

With additional regard to dependent claim 7, this claim requires that the "highlighting" be accomplished by at least "displaying said one video image in an area larger than the area in which each other video image is displayed." The Examiner admits that Kohda does not show this, but points to Palmer in an attempt to show this, particularly col. 21, lines 5-6. However, a review of the cited passage of Palmer finds that Palmer merely indicates that images may be "sized...to change the number of pixels contained in the image," and nothing more. There is absolutely no indication that the sizing is in any way determined based on the audio signals; indeed, the best reading of Palmer is that the image may be "sized" only through manual intervention of the user, hence the need for the "digital readout 704 of the video image size...and a sliding scale indicator 706 with associated digital readout 708 for showing the average frame rate," (Palmer, col. 21, lines 1-5). Thus, while Palmer may show that an image may be sized at the manual instruction of a user, Palmer simply does not teach that "highlighting ... based on said comparison of said received audio signals from said remote participants" can be accomplished by at least "displaying said one video image in an area larger than the area in which each other video image is displayed," as required by claim 7. It

follows that the combination of Kohda with Palmer, assuming *arguendo* that such combination is proper, fails to teach or suggest each element of claim 7. Accordingly, claim 7 defines patentable subject matter over the cited art, even if independent claim 1 and/or dependent claim 6 does not.

With additional regard to dependent claim 10, this claim requires that the "highlighting" be accomplished by at least "displaying a distinctive border around said one video image." The Examiner admits that Kohda does not show this, but points to Tang in an attempt to show this, particularly col. 7, lines 36-38. However, a review of the cited passage of Tang finds that Tang merely indicates that images that are selected by a user may be "highlighted" by a distinctive border. There is absolutely no indication that the highlighting is in any way determined based on the audio signals; indeed, the best reading of Tang is that the image may be "highlighted" only through manual intervention of the user, see Tang, col. 7, lines 30-32 ((the current worker may obtain more detailed information about an individual worker displayed [in the gallery window] by selecting the icon 14 of the worker... The currently selected icon 14 is identified to the current worker by the highlighting around the selected icon 14.")) (emphasis added)). Thus, at most, Tang teaches that border highlighting may be used to identify user-selected icons. Such a teaching does not teach or suggest that "highlighting ... based on said comparison of said received audio signals from said remote participants" can be accomplished by at least "displaying a distinctive border around said one video image," as required by claim 10. It follows that the combination of Kohda with Tang, assuming *arguendo* that such combination is proper, fails to teach or suggest each element of claim 10. Accordingly, claim 10 defines patentable subject

matter over the cited art, even if independent claim 1 and/or dependent claim 6 does not.

With additional regard to dependent claim 11, this claim requires that the "highlighting" be accomplished by at least "displaying alphanumeric identification regarding said one remote participant." The Examiner admits that Kohda does not show this, but points to Tang in an attempt to show this, particularly col. 9, lines 29-33. However, a review of the cited passage of Tang finds that Tang says absolutely nothing about such an alphanumeric highlighting; instead the passage reads "In the chat room window 30 there is displayed the icon 14 associated with each worker who is presently in the chat room. If a worker's computer supports video, their video is used as their icon in the chat room. There are a variety of ways to contribute to a discussion in a chat room." As such, Applicant submits that the Examiner's position does not find any support in the cited passage of Tang, and is therefore improper. It follows that the combination of Kohda with Tang, assuming *arguendo* that such combination is proper, completely fails to teach or suggest that "highlighting ... based on said comparison of said received audio signals from said remote participants" can be accomplished by at least "displaying alphanumeric identification regarding said one remote participant," as required by claim 11. Accordingly, claim 11 defines patentable subject matter over the cited art, even if independent claim 1 and/or dependent claim 6 does not.

With additional regard to dependent claim 12, this claim requires that the "highlighting" be accomplished by at least "displaying video images other than said one video image using a color scheme different than the color scheme used to display said one video image." The Examiner admits that Kohda does not show this, but points to

Palmer in an attempt to show this, particularly Figures 2 and 26b-g. However, a review of the cited parts of Palmer finds that Palmer says absolutely nothing about highlighting by using a different color scheme; instead the cited parts of Palmer merely suggest that a user may control the saturation, brightness, contrast, etc. of a displayed image based on settings manually made by the user. This manual-by-the-user image control of Palmer has absolutely nothing whatsoever to do with highlighting, much less highlighting based on audio signals. As such, Applicant submits that the Examiner's position does not find any support in the cited portions of Palmer, and is therefore improper. It follows that the combination of Kohda with Palmer, assuming *arguendo* that such combination is proper, completely fails to teach or suggest that "highlighting ... based on said comparison of said received audio signals from said remote participants" can be accomplished by at least "displaying video images other than said one video image using a color scheme different than the color scheme used to display said one video image," as required by claim 12. Accordingly, claim 12 defines patentable subject matter over the cited art, even if independent claim 1 and/or dependent claim 6 does not.

With additional regard to dependent claim 13, this claim requires that the receiver "receive[] a video data signal" and that the controller control the display to "highlight one video image and a video data image extracted from said video data signal based on said comparison of said received audio signals from said remote participants by said comparator." The Examiner points to various portions of Kohda in an attempt to show this aspect. However, none of the cited portions of Kohda say anything about a "video data image," as that term is used by Applicant and understood by one of ordinary skill in

the art (see page 10, line 18 to page 11, line 8). In this context, it should be understood that the "video data image" is different from a "video image." Whatever Kohda may or may not show with respect to "video images," Kohda says nothing about "video data images" at all. Thus, Kohda fails to show each element of the invention claimed in claim 13. Accordingly, Applicant submits that claim 13 defines patentable subject matter over the cited art, even if independent claim 1 does not.

With regard to dependent claim 14,<sup>1</sup> this claim defines patentable subject matter for the reasons stated above with respect to dependent claim 13 and dependent claim 3, even if independent claim 1 does not.

### Claims 15-28

Independent claim 15 is directed to a mobile terminal that comprises, *inter alia*, "a wireless receiver ...; a comparator...; a display; and a controller controlling said display to display a video image extracted from said video signals based on the comparison of said received audio signals." Applicant notes that the Examiner relies on Kohda for all teachings, except for asserting that that Ludwig teaches a "mobile terminal for video conferencing." However, Ludwig cannot be properly combined with Kohda in the way suggested by the Examiner to render obvious the subject matter of claim 15. First, it must be emphasized that a critical aspect of Kohda is that all the input/output units 10 are fed the same selected audio and video signals from the central image distributing unit 20. The reason for this is that Kohda sees it as important that all the image

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<sup>1</sup> Applicant notes that claim 14 depends from claim 13, not directly from claim 1. In discussing the rejection of claim 14, the Examiner failed to address the limitations of claim 13. However, it is assumed for purposes of this response that the Examiner's comments with respect to claim 13 were intended to apply also to claim 14. Clarification on this point by the Examiner is however respectfully requested.

input/output units 10 to show the same video images (see Kohda col. 10, lines 55-62).

If, as the Examiner appears to suggest, each individual modified-Kohda image input/output unit 10 (presumably the Ludwig mobile terminal) made its own determination, then this critical feature of Kohda would be defeated. As such, the modifying Kohda according to Ludwig is improper because such a modification would defeat a stated purpose of Kohda. Alternatively, if the image determination process is maintained at a central image distributing unit 20 as required by Kohda, simply substituting a mobile terminal for Kohda's image input/output units 10 does not result in the mobile terminals meeting all the required limitations. Such mobile terminals would not, for instance, have the required controller "controlling said display to display a video image extracted from said video signals based on the comparison of said received audio signal," but would instead display whatever the central image distributing unit 20 instructed them to. In contrast, the invention of claim 15 requires that each communication terminal to decide for itself which image to display. Simply teaching that a mobile terminal may be used in video conferencing does nothing to cure the fundamental defects in the teachings of Kohda discussed above with respect to claim 1. Thus, assuming *arguendo* that Ludwig teaches a mobile terminal for videoconferencing, simply converting the Kohda input/output units 10 into mobile terminals would not result in the subject matter of claim 15. In view of the above, Applicant submits that independent claim 15, and its dependent claims 16-21, 24-27, define patentable subject matter over the cited art.

With further regard to dependent claim 17, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 3,

even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda described above with respect to claim 3. As such, the combination of Kohda with Ludwig, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 17.

With further regard to dependent claim 19, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 5, even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Palmer described above with respect to claim 5. As such, the combination of Kohda with Ludwig and Palmer, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 19.

With further regard to dependent claim 20, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 6, even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda described above with respect to claim 6. As such, the combination of Kohda with Ludwig, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 20.

With further regard to dependent claim 21, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 7, even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Palmer described above with respect to claim 7. As such, the combination of Kohda with Ludwig and Palmer,

assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 21.

With further regard to dependent claim 24, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 10, even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Tang described above with respect to claim 10. As such, the combination of Kohda with Ludwig and Tang, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 24.

With further regard to dependent claim 25, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 11, even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Tang described above with respect to claim 11. As such, the combination of Kohda with Ludwig and Tang, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 25.

With further regard to dependent claim 26, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 12, even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Palmer described above with respect to claim 12. As such, the combination of Kohda with Ludwig and Palmer, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 26.

With further regard to dependent claim 27, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 13, even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda described above with respect to claim 13. As such, the combination of Kohda with Ludwig, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 27.

With further regard to dependent claim 28,<sup>2</sup> this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 14, even if independent claim 15 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda described above with respect to claim 14. As such, the combination of Kohda with Ludwig, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 28.

### **Claim 29**

Independent claim 29 is directed to a mobile terminal for video conferencing that comprises, *inter alia*, "a wireless receiver ...; a display having a height greater than its width, said display operating in a portrait mode in a default condition; and a controller controlling said display to display video images extracted from said video signals in a landscape mode when said wireless receiver receives said video signals from a plurality of said remote participants." The Examiner relies on Palmer in an attempt to show the portrait/landscape display use as claimed; this reliance is misplaced. In particular, the

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<sup>2</sup> Applicant notes that claim 28 depends from claim 27, not directly from claim 15. In discussing the rejection of claim 28, the Examiner failed to address the limitations of claim 27. However, it is assumed for purposes of this response that the Examiner's comments with respect to claim 27 were intended to apply also to claim 28. Clarification on this point by the Examiner is however respectfully requested.

Examiner seems to assert that the user-triggered "sizing" of Palmer somehow teaches switching the display from a "portrait mode in a default condition" to "a landscape mode when said wireless receiver receives said video signals from a plurality of said remote participants." However, there are two problems with this. First, the "sizing" of Palmer may change the size, but does not appear to change the orientation of the relevant images; the latter is required to change from "portrait" to "landscape" as is understood by one of ordinary skill in the art. Second, there is absolutely no causal relationship between the "sizing" of Palmer and the receipt of "video signals from a plurality of said remote participants," as required by claim 29. As such, the combination of Palmer with Kohda and Ludwig, assuming *arguendo* such combination is proper, simply does not teach each limitation of claim 29. Accordingly, Applicant submits that independent claim 29 defines patentable subject matter over the cited art.

### **Claim 30**

Independent claim 30 is directed to a communication terminal that comprises, *inter alia*, "a receiver ...; a processor...; a display; a controller controlling said display to display ...; and an audio output sending said audio signal associated with said one video signal to a right speaker and sending said audio signal associated with said other video signal to a left speaker." For reasons similar to those discussed above with respect to independent claim 15, Applicant submits that Ludwig cannot be properly combined with Kohda in the way suggested by the Examiner to render obvious the subject matter of claim 30. Accordingly, Applicant submits that independent claim 30 defines patentable subject matter over the cited art.

**Claims 31-44**

Independent method claim 31 corresponds generally to independent apparatus claim 15 and requires that the relevant "receiving," "comparing," and "displaying the video images ...based on the comparison of the audio signals," be carried out at the mobile terminal. For reasons similar to those discussed above with respect to independent apparatus claim 15, Applicant submits that Ludwig cannot be properly combined with Kohda in the way suggested by the Examiner to render obvious the subject matter of claim 31. Accordingly, Applicant submits that independent claim 31, and its dependent claims 32-36, 39-44, define patentable subject matter over the cited art.

With further regard to dependent claim 33, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 3, even if independent claim 31 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda described above with respect to claim 3. As such, the combination of Kohda with Ludwig, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 33.

With further regard to dependent claim 35, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 6, even if independent claim 31 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda described above with respect to claim 6. As such, the combination of Kohda with Ludwig, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 35.

With further regard to dependent claim 36, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 7, even if independent claim 31 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Palmer described above with respect to claim 7. As such, the combination of Kohda with Ludwig and Palmer, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 36.

With further regard to dependent claim 39, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 10, even if independent claim 31 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Tang described above with respect to claim 10. As such, the combination of Kohda with Ludwig and Tang, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 39.

With further regard to dependent claim 40, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 11, even if independent claim 31 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Tang described above with respect to claim 11. As such, the combination of Kohda with Ludwig and Tang, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 40.

With further regard to dependent claim 41, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 5,

even if independent claim 31 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Palmer described above with respect to claim 5. As such, the combination of Kohda with Ludwig and Palmer, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 41.

With further regard to dependent claim 42, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 12, even if independent claim 31 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda and Palmer described above with respect to claim 12. As such, the combination of Kohda with Ludwig and Palmer, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 42.

With further regard to dependent claim 43, this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 13, even if independent claim 31 does not. In this vein, Applicant notes that the addition of Ludwig does nothing to cure the defects in Kohda described above with respect to claim 13. As such, the combination of Kohda with Ludwig, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 43.

With further regard to dependent claim 44,<sup>3</sup> this claim defines patentable subject matter for similar reasons as those expressed above with respect to dependent claim 14, even if independent claim 31 does not. In this vein, Applicant notes that the addition

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<sup>3</sup> Applicant notes that claim 44 depends from claim 43, not directly from claim 31. In discussing the rejection of claim 44, the Examiner failed to address the limitations of claim 43. However, it is assumed for purposes of this response that the Examiner's comments with respect to claim 43 were intended to apply also to claim 44. Clarification on this point by the Examiner is however respectfully requested.

of Ludwig does nothing to cure the defects in Kohda described above with respect to claim 14. As such, the combination of Kohda with Ludwig, assuming *arguendo* that such combination is proper, does not teach the subject matter of claim 44.

**Claim 45**

Independent method claim 45 corresponds generally to independent apparatus claim 29; for reasons similar to those discussed above with respect to independent apparatus claim 29, Applicant submits that independent method claim 45 defines patentable subject matter over the cited art.

**Claim 46**

Independent method claim 46 corresponds generally to independent apparatus claim 30; for reasons similar to those discussed above with respect to independent apparatus claim 30, Applicant submits that independent method claim 46 defines patentable subject matter over the cited art.

Respectfully submitted,  
COATS & BENNETT, P.L.L.C.

  
John R. Owen  
Registration No.: 42,055  
Telephone: (919) 854-1844

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